



## Prevalence and predictors of secondary trauma in the legal profession: a systematic review

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There has been increased scrutiny of occupations that less obviously experience adverse impacts from indirect exposure to trauma. In legal professions, repeated exposure to clients who have experienced trauma comprises a significant part in the role of lawyers, attorneys, solicitors and judges. The current review aimed to explore the prevalence and risk factors of secondary trauma reported by such legal professionals. A systematic search using seven psychological and legal databases elicited 10 articles for review. Quality appraisal revealed several methodological frailties in the reviewed articles. Thus, the findings should be interpreted with caution. Results indicated comparatively high prevalence of secondary trauma in legal professionals, and highlighted predictors and correlates of secondary trauma (gender, work experience, personal trauma and level of exposure). The review emphasised significant variability between the studies making systematic comparisons challenging, as well as the need for further conceptually consistent and scientifically robust studies.

**Key words:** attorney; burnout; compassion fatigue; judges; lawyer; legal profession; post-traumatic stress disorder; secondary traumatic stress; solicitor; vicarious trauma.

### Introduction

Repeated exposure to clients who have encountered trauma is a dimension of working within legal occupations. Indeed, legal professionals, particularly those employed in criminal law, will experience work with vulnerable victims of crime. This exposure implies contact with traumatogenic material, such as graphic, injurious photographic evidence or witness accounts and narratives of traumatic events, accompanied by heightened levels of emotions and distress from clients. Work tasks may involve direct and indirect experience of strong emotions through consultation with clients pursuing custody and liability battles, imprisonment, managing court proceedings or issuing sentences, which may also imply

trauma exposure. Given the frequency of such work-related exposure, legal professionals may themselves be vulnerable to adverse psychological impacts (James, 2020).

In 2013, the *Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition* (DSM–5; American Psychiatric Association, 2013) included indirect occupational exposure as a viable criterion for the post-traumatic stress disorder (PTSD) diagnosis. Symptoms of PTSD include intrusions, avoidance, negative alterations in cognition/mood and alterations in arousal and reactivity. The reported criterion related to indirect exposure specifies possible at-risk professions, such as first responders and health professionals (Greinacher et al., 2019).

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In recent years there has been greater awareness and research examining the potential adverse effects of indirect trauma, particularly on health and social care professionals; notably nurses (Yang & Kim, 2012), mental health professionals (Collins & Long, 2003), therapists (Canfield, 2005) and social workers (McFadden et al., 2015). Recently, research has broadened its scope to other occupations that may also potentially experience adverse impacts from indirect exposure to trauma.

### ***Occupational distress in the legal profession***

For this review, the term ‘legal profession’ encapsulates several different roles: barristers, attorneys, solicitors, lawyers and judges. These professionals, often associated with high status and high earning, also report significant indices of psychological morbidity, such as elevated levels of clinical depression, anxiety and stress (JLD, 2019) and excessive alcohol use (Krill et al., 2016).

Furthermore, a growing body of research shows that other groups involved in legal processes experience distress. Up to 50% of criminal jurors reported trauma-related symptoms following their involvement in criminal court (Lonergan et al., 2016), known as juror stress (Miller & Bornstein, 2004). It follows that other legal professionals exposed to similar traumatic processes and materials may be similarly affected.

Additionally, an expanding evidence base suggests that other professions working within the legal and justice system exhibit adverse effects from indirect exposure to trauma; notably, police officers have been extensively researched compared to other legal professions. Reviews of adverse impacts for police officers following exposure to traumatised individuals indicated that gender and personal trauma history were potential risk factors, whilst peer/social support, use of humour and organisational recognition of distress were potential resilience factors (Greinacher et al., 2019, MacEachern et al., 2011). Related

professions might show similar predictors from indirect exposure to trauma.

### ***Conceptual clarification***

The adverse impacts of exposure to others’ distress was first identified amongst those working in human services and constructed as ‘burnout’. Initially conceived by Maslach (Maslach & Jackson, 1981; Maslach et al., 1996), burnout encompasses exhaustion, depersonalisation, reduced personal accomplishment and cynicism due to work requiring intense emotional involvement with clients over time, culminating in occupational exhaustion.

Emerging from psychotherapeutic encounters, vicarious trauma (VT) was described by Pearlman and Saakvitne (1995). They noted changes in therapists’ inner schemata about their views of the world and their safety within it, via exposure to traumatised clients. Discriminant validity proposed that VT is distinct from other concepts of secondary trauma due to the transformative cognitive processes that occur (Baird & Kracen, 2006).

At much the same time, Figley (1995) noted PTSD-like symptoms in social workers who had been exposed to traumatised clients, including symptoms such as hyperarousal, flashbacks and avoidance. This distress with trauma-like features was termed secondary traumatic stress (STS), arising via four mechanisms: empathetic engagement; personal trauma history; unresolved trauma; and working with childhood trauma. Figley also coined the term compassion fatigue (CF), using the term interchangeably with STS. In 2010, Stamm redefined the term CF given the valence of the word fatigue, instead suggesting both STS and burnout as two constituent elements forming CF. Further refinement of the construct was conducted by Nolte et al. (2017), whose review offered a model explaining trigger factors and physical and emotional symptoms. Symptoms included fatigue, physical pain, disturbed sleep, withdraw and hopelessness.

Thus indirect trauma exposure can contribute to forms of occupational distress that are variably and inconsistently described as burnout, VT, STS and CF. Attempts have been made to provide clarification; however, overlap in descriptions and domains remains, core features are contested (Elwood et al., 2011), and diverse operationalisation and measurement have generated a cadre of research under differing conceptual frameworks. For the purposes of this review, the collective term of secondary trauma is used to encapsulate the phenomena as mentioned earlier (burnout, VT, STS and CF), thought to arise from effects of indirect trauma exposure.

### *Why examine secondary trauma in legal professionals?*

Given that legal professionals appear regularly exposed to traumatogenic material, a critical appraisal and synthesis of the extent of any secondary trauma and potential risk factors seem warranted. A recent review (James, 2020) examined the history of trauma-informed legal practice and recent studies of lawyer's wellbeing, while discussing the recognition of secondary trauma within the legal profession. This article also puts great emphasis on the relative paucity of studies so far and the need for organisational recognition and structural trauma-informed change.

To date, there has been no systematic attempt to summarise, appraise and synthesise published research. While such work-related distress will be captured variously, examining quantitative research focusing on prevalence and risk factors under the rubric of secondary trauma should summarise the extent of reported difficulties and factors related to them. Potentially, this will contribute to identifying gaps in the research base and offer suggestions to mitigate distress and opportunities for further research. The current review thus has the following aims:

1. To examine the prevalence of secondary trauma in legal professionals and

the dominant means of measuring the phenomena.

2. To understand what predictors and associated factors within the legal profession appear to contribute to secondary trauma, including how those suggested factors explain levels of variance in developed secondary trauma.

## **Method**

### *Study design*

A study protocol, and its reporting, was informed by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) recommendations (Moher et al., 2009) and the Centre for Reviews and Dissemination. The current review was not registered with International Prospective Register of systematic reviews (PROSPERO) (Booth et al., 2012), but interrogation of the database revealed no registered reviews on this topic.

### *Search strategy*

The search strategy was developed with a senior university librarian. Initial scoping searches identified no current literature reviews on indirect trauma exposure in the legal professions, but an examination of grey literature via Google scholar revealed a growing evidence base regarding indirect traumatisation and occupational distress across professional groups.

A systematic search strategy was undertaken in October 2019, informed by Population, Intervention, Comparison, Outcome, Study type (PICOS) (Table 1). Seven databases (PsychINFO, PILOTS, PubMed, Web of Science, Westlaw UK, Business Source Premier and Criminal Justice Abstracts) were utilised to ensure coverage of health research, social sciences and legal subjects. The search terms employed included: 'burnout' OR 'compassion fatigue' OR 'secondary trauma' OR 'vicarious trauma' OR 'PTSD', with combinations of: 'solicitor' OR 'barrister' OR

Table 1. PICOS-statement informing inclusion and exclusion criteria.

	Inclusion criteria	Exclusion criteria
P: Population	Legal professions; barristers, attorneys, solicitors, lawyers and judges.	Other professions, including law enforcement and policing.
I: Intervention	N/A	Aim to measure coping strategies
C: Comparison	Including both comparative and non-comparative studies.	N/A
O: Outcome	Prevalence or predictors of secondary trauma.	Study aimed to measure direct trauma.
S: Study type	Quantitative and mixed methods with independently discernible quantitative data.	Qualitative studies, editorials and reviews.

‘lawyer’ OR ‘attorney’ OR ‘judge’ OR ‘legal’, with all variations and synonyms of the terms. Boolean operation and truncation methods were carried out in individual databases.

### *Selection criteria for studies*

The filters applied to the databases limited results to ‘peer-reviewed publications’ and ‘English language’. The author determined study eligibility for inclusion. No date restrictions were made given no literature reviews were found during initial scoping. All results from the databases were exported to EndNote X9, where all duplicates were removed automatically, as well as manually.

Eligibility criteria for selected studies were guided by the PICOS method. The inclusion criteria were employed during the examination of titles and abstracts, with reference mining employed to ensure all salient articles were included. Thirty-four articles met the inclusion criteria and were read in full. After reading, 24 articles were excluded (Figure 1).

### *Data extraction*

A specially constructed form was developed to extract salient information. Essential information extracted comprised: author and publication date; aims; sample demographics; sampling method; study design; measures; analysis (reliability and validity); results; conclusions; implications; and limitations. To clarify how secondary trauma had been conceived

and applied, the definition adopted in each paper was included as well as psychometric properties of measures, method of statistical analysis and effect sizes.

### *Quality appraisal*

After paper selection, articles were assessed for quality using Downes et al.’s (2016) ‘Appraisal Tool for Cross-sectional Studies’ (AXIS). AXIS was developed to address a need for specificity, generalisability and transferability often absent in other tools appraising cross-sectional studies. Its development included a Delphi panel adding to its robustness by applying expertise and evidence from several different disciplines. Its use in this review is to assess and compare study quality rather than for exclusion.

The AXIS tool comprises 20 questions across three domains: ‘study design’ (seven questions); ‘reporting’ (seven questions); and ‘introduction of bias’ (six questions). The responses to the questions are categorical (‘yes’, ‘no’, ‘do not know’), rather than numerically linear, to avoid inter-scale incongruity. Each question was individually appraised as either present (‘yes’) or not present in the study (‘no’ or ‘do not know’). The author created a sum out of 20 items, where  $\geq 16$  indicated high-quality studies (Kiss et al., 2018; Wong et al., 2018).

All studies were quality assessed by two individual and independent raters using the

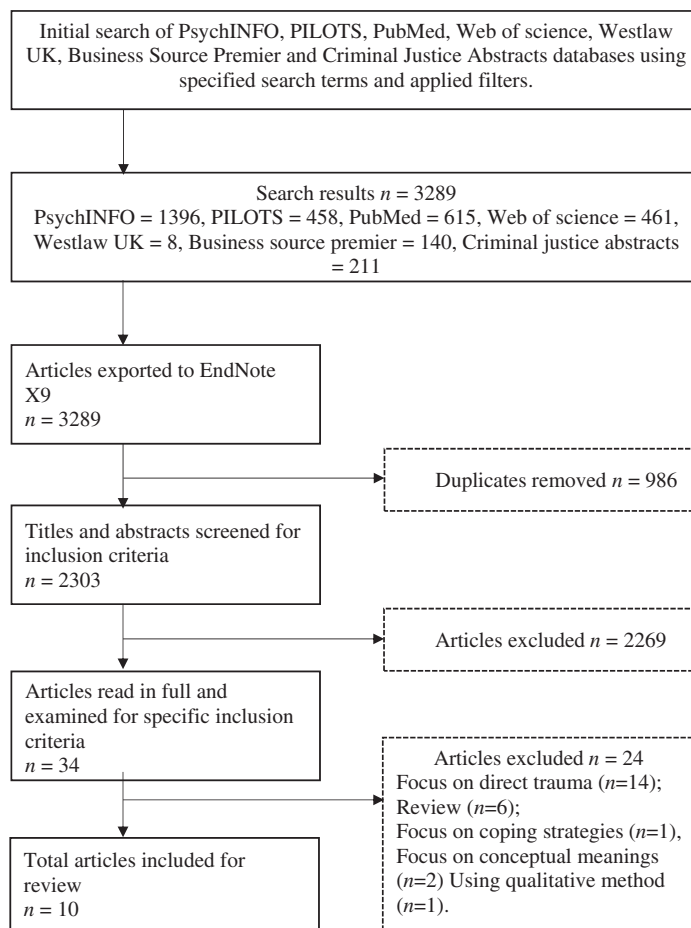


Figure 1. PRISMA chart of shortlisting process.

same appraisal criteria to assess 50% of the studies, which were randomly selected. Interrater reliability showed a strong level of agreement,  $\kappa = .84$ ,  $p < .001$ .

## Results

### *Elicited studies' characteristics*

Ten articles satisfied inclusion criteria and were included in the current review. All papers were published between 2003 and 2019, were cross-sectional in design and employed survey methodology. Most studies were solely quantitative, but one study reported mixed methods. Five of the studies purposively surveyed their

target professional group, and the rest used comparative between-groups designs. One article reported comparison data on mental health professionals' (MHPs') and lawyers' occupational distress, without data on sample size or characteristics (Levin & Greisberg, 2003). The remaining nine articles reported data from 1593 participants, 1454 of whom were legal professionals (the remainder from comparator professions). Legal professionals represented in the papers comprised lawyers ( $N = 907$ , 62.4%) and judges ( $N = 547$ , 37.6%), working in different legal domains: immigration (Lustig et al., 2008); asylum (Piwowarczyk et al., 2009); and criminal/non-criminal law

(Vrklevski & Franklin, 2008). In comparative studies, legal professionals' distress was variously compared to that of other professions, such as social workers, MHPs, psychologists (Levin & Greisberg, 2003; Maguire & Byrne, 2017), or administrative support staff (Levin et al., 2011).

Across the nine studies, 52.6% were female, and 46.3% were male, which is consistent with distribution in Australia and Canada, according to data from The Law Society of New South Wales (LSNSW, 2016) and The Federation of Law Societies of Canada (FLSC, 2017). The gender distribution in this review (male: 65%) is different from reported statistics in the USA according to the American Bar Association (ABA, 2018). Age was reported both in mean and in percentages per age group, making direct comparison challenging. All studies were completed in English-speaking countries (Australia, Canada and the USA). Only two studies offered data on ethnicity, both reporting that a majority of the participants were reported as either Caucasian or Anglo-Saxon (Leclerc et al., 2020; Vrklevski & Franklin, 2008). Sample characteristics are presented in detail in Table 2.

### **Methodological features**

All studies employed survey design and convenience sampling. None of the studies reported justification for the chosen sample size, which may reflect the sampling method or the exploratory nature of some of the studies. Two articles (Jaffe et al., 2003; Schrever et al., 2019) made use of author-designed questionnaire items. In between-group design studies, the aim of the comparison group was rarely justified or clarified further, mainly methodological limitations inherent to comparing two different professions.

All studies measured elements of indirect exposure to trauma, either through validated measures, or through development of their questionnaire items. The studies operationalised secondary trauma in various ways: VT (Jaffe et al., 2003; Levin & Greisberg, 2003;

Maguire & Byrne, 2017; Vrklevski & Franklin, 2008); PTSD (Leclerc et al., 2020); STS (Lustig et al., 2008; Piwowarczyk et al., 2009; Schrever et al., 2019); and CF (Levin et al., 2011; Miller et al., 2018).

Measures focused predominantly on elements of secondary trauma (Vicarious Trauma Scale, VTS; Impact of Events Scale-Revised, IES-r; Maslach's Burnout Inventory-General Survey, MBI-GS; Secondary Traumatic Stress Scale, STSS; Life Events Checklist for DSM-5, LEC-5, where DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; Copenhagen Burnout Inventory, CBI; Posttraumatic Stress Disorder Checklist-5, PTSD Checklist for DSM-5 (PCL-5); Professional Quality of Life Scale, ProQOL) and psychological distress (Depression, Anxiety and Stress Scale, DASS-21; Kessler Psychological Distress Scale, K-10; Center for Epidemiologic Studies Depression Scale, CES-D; International Depression Literacy Survey, IDLS; Hopkins Symptoms Checklist-25, HSCL-25). Furthermore, studies made use of other specific measures related to alcohol use (World Health Organisation's Alcohol Use Disorders Identification Test, AUDIT), personality (Ten Item Personality Measure, TIPI), functional impairment (Sheehan Disability Scale, SDS) and trauma/attachment beliefs (Trauma and Attachment Belief Scale, TABS). Only one study explicitly reported instructing participants to focus on work-related trauma and indirect trauma exposure from clients (Leclerc et al., 2020), making it questionable whether reported secondary trauma scores were a result of direct or indirect exposure. Variability in constructs used, and hence measures, precluded direct comparisons between studies.

### **Methodological quality of included studies**

The quality scores of the included studies ranged from five to 17 criteria met, with one article meeting the threshold for high quality (>16). A summary of the studies'



Table 2. Study characteristics and results relating to research questions.

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
Jaffe et al. (2003) USA	Vicarious trauma in judges: the personal challenge of dispensing justice.	1. Rates and types of VT symptoms experienced by judges. 2. Relationship between VT experiences and judges' characteristics (age, work experience, gender).	Quantitative. Cross-sectional. Survey.	Convenience sampling. 105 judges. Age (years): $M=51$ ( $SD=8.1$ ). Gender: 54.3% male 45.7% female.	Survey developed by the authors. Open-ended questions based on trauma symptoms. Paper tests administered	ANOVA and chi-square analysis used. Grouping of VT symptoms	<i>Prevalence:</i> 63% of the participants reported one or more VT symptoms. <i>Associated factors:</i> Females reported more VT symptoms on average than males (73% vs. 54%), $\chi^2(1, N=104) = 3.83, p < .05$ . More work experience predicted more VT symptoms, $F(1, 103) = 6.56, p < .05$ . Age, sex and experience reported as possible risk factors of VT in judges. No reporting of effect sizes
Leclerc et al. (2020) Canada	The unseen cost of justice: post-traumatic stress symptoms in Canadian lawyers.	1. Assess average PTSD symptom severity. 2. Identify the proportion of lawyers meeting the diagnostic criteria of PTSD. 3. Levels of psychological distress and quality of life, understanding lawyers' wellbeing. Comparing lawyers with no, moderate and high work-related trauma exposure.	Quantitative. Cross-sectional. Between-group design.	Convenience sampling. 476 lawyers. Age (years): 20–29 (13.7%) 30–39 (34.9%) 40–49 (24.8%) 50–59 (18.3%) 60+ (8.4%). Gender: 42.4% male 57.6% female. Ethnicity: 84.5% Canadian 88.9% Caucasian 59% living in Quebec.	LEC-5 PCL-5 HSCL-25 WHOQOL-BREF. Online survey.	Two-sided tests, alpha level of .05. Descriptives (chi-squares, $t$ tests and ANOVA). Post hoc Bonferroni contrast analysis was conducted between groups. ANCOVA used to test moderating hypotheses.	<i>Prevalence:</i> 9% of participants met criteria for PTSD DSM-5. <i>Associated factors:</i> Higher trauma exposure predicted higher levels of PTSD symptoms, $F(1, 471) = 4.79, p = .029, \eta^2_p = .01$ . Prior trauma history predicted higher levels of PTSD symptoms. Females more likely to develop PTSD symptoms, and had more severe symptoms than men. Higher number of weekly work hours increased the risk of PTSD by 1.89 times. No exposure to moderate exposure (medium; $d = 0.40$ ); no exposure and high exposure (large; $d = 0.70$ ); moderate and high exposure (small to medium effect size).
Levin & Greisberg (2003) USA	Vicarious trauma in attorneys.	Exploring levels of VT in attorneys compared to trauma exposure.	Quantitative. Cross-sectional. Between-group design.	Social workers, mental health professionals and attorneys. Age (years):	Secondary trauma questionnaire (STO). Items assessing	Method of analysis not reported.	<i>Prevalence:</i> Attorneys showed higher levels of STS and burnout than social workers and mental health professionals (no statistical data

(Continued)

Table 2. (Continued).

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
Levin et al. (2011) USA	Secondary traumatic stress in attorneys and their administrative support staff working with trauma-exposed clients.	Examine how caseload of trauma-exposed clients predicts higher symptom load and mediating variables. Do attorneys have more symptoms than admin staff.	Quantitative. Cross-sectional. Between-group design.	Reports 'similar age'. Gender: Reports 'mostly female'.	burnout. Caseload, personal trauma and treatment history.		<p><i>Associated factors</i> Larger caseload predicted higher scores on STS and burnout (no statistical data reported).</p> <p>No effect sizes reported.</p> <p><i>Prevalence:</i> 11% of lawyers met criteria for PTSD DSM-5.</p> <p>PTSD symptoms, depression, functional impairment, burnout and STS were consistently higher among attorneys than among admin support staff.</p> <p>Large effect sizes from the PROQOL on burnout (<math>d = 0.98</math>) and STS (<math>d = 0.78</math>).</p> <p><i>Associated factors:</i> Bivariate correlation analysis showed that the IES-r and PROQOL (excluding Compassion satisfaction (CS)) correlated significantly (<math>p &lt; .001</math>) with hours worked per week (IES-r: <math>r = .25-.29</math>; PROQOL5: <math>r = .26-.40</math>) and the number of trauma-exposed clients (IES-r: <math>r = .24-.28</math>; PROQOL5: <math>r = .30-.37</math>).</p> <p>Participant group significantly explained 7% of the variance in PTSD symptoms.</p> <p>Work-related exposure significantly explained 14% of the variance in PTSD symptoms. Work-related exposure variables mediated (albeit not exclusively) the attorneys' vulnerability to PTSD symptoms.</p> <p>Participant group significantly explained 20% of the variance in STS and burnout scores. Work-related exposure variables mediated albeit not exclusively attorneys' vulnerability to STS and burnout.</p>

(Continued)



Table 2. (Continued).

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
Lustig et al. (2008) USA	Burnout and stress among United States immigration judges.	Investigated whether immigration judges suffer from STS and burnout.	Quantitative, Cross-sectional. Explorative.	Convenience sampling. 96 immigration judges. Age (years): $M = 53$ ( $SD = 6.55$ ) Gender: 44.8% female; 55.2% male.	Demographics. STSS CBI. Online survey.	Percentage and mean scores.	<i>Prevalence:</i> Comparisons with other professional groups using the same psychometric measures showed that immigration judges experienced more burnout than hospital or prison staff (no statistical significance reported). <i>Associated factors:</i> Female judges reported more STS than male judges ( $M = 2.50$ vs. $M = 1.84$ , $p > .0005$ ). No reported effect sizes. <i>Prevalence:</i> The VTS score was significantly higher for lawyers ( $M = 39.86$ , $SD = 7.81$ ), than for MHPs ( $M = 33.13$ , $SD = 6.96$ , 95% CI [3.06, 10.40]), $t(64) = 3.66$ , $p = .001$ . Large effect size ( $d = 0.90$ ). IES-r scores for lawyers ( $M_{rank} = 40.00$ ) significantly higher than for MHPs ( $M_{rank} = 24.83$ , $U = 280.00$ , $z = -3.235$ , $p = .001$ . Medium effect size ( $r = .40$ ). Lawyers were significantly higher on all measures of the DASS-21 scales. Depression: Lawyers ( $M = 11.88$ , $SD = 4.49$ ) vs. MHPs ( $M = 8.67$ , $SD = 2.86$ ), $p < .001$ , $d = 0.84$ . Anxiety: Lawyers ( $M = 11.42$ , $SD = 4.39$ ) vs. MHPs ( $M = 7.87$ , $SD = 1.33$ ), $p < .001$ , $d = 1.01$ . Stress: Lawyers ( $M = 14.58$ , $SD = 4.80$ ) vs. MHPs ( $M = 11.28$ , $SD = 3.18$ ), $p < .002$ , $d = 0.80$ . <i>Associated factors:</i> No effect of gender. Profession (lawyers vs. MHP) accounted for 15% of the variance. This effect was
Maguire & Byrne (2017) Australia	The law is not as blind as it seems: relative rates of vicarious trauma among lawyers and mental health professionals.	Compares the extent to which exposure to traumatic information affects helping professionals and legal practitioners. Explores whether personality type can influence the level of risk to trauma reaction	Quantitative, Cross-sectional. Between-group design.	Convenience sampling. 36 lawyers 30 MHPs 21 psychologists, 9 social workers. Age (years): 18-24 (7%) 25-34 (32%) 35-44 (17%) 45-54 (23%) 55+ (21%). Gender: 20% male 80% female.	Demographics: IES-r VTS DASS-21 TIPI	$t$ tests. Correlations.	(Continued)

Table 2. (Continued).

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
Miller et al. (2018) USA	Judicial stress: the roles of gender and social support.	<i>Research questions:</i> What is judges' stress level? Does gender moderate the relationship between social support, stress, health-/job-related outcomes?	Quantitative, Cross-sectional. Explorative.	Convenience sample. 221 judges. Age (years): 30–39 (0.01%) 40–49 (14.02%) 50–59 (41.62%) 60+ (40.72%). Gender: 61.3% male 28.7% female	Survey developed by the authors relating to perceived general stress, mental/physical health, job satisfaction, social support, and a 13-item Compassion Fatigue scale. 'Clicker' responder to survey, presented at a seminar.	Chi-square correlations. Linear regressions.	mediated by entering the personality trait emotional stability (neuroticism), which increased explained variance by 20%. The scores from the remaining four personality traits increased explained variance again by 18% in total. Personal trauma history added 6% to the explained variance.  <i>Associated factors</i> There were no significant main effects for gender or social support and no interaction effect on the secondary trauma measure. There was no main effect for gender, but there was an interaction effect indicating a negative relationship between social support and burnout: increased social support led to less perceived general stress, but only for male judges, $R^2 = .07$ , $F(3, 136) = 3.45$ , $p < .05$ ; interaction term, $B = -0.480$ , $p < .05$ . Social support was related to less perceived stress, less burnout and more job satisfaction, but only for males.
Piwowarczyk et al. (2009) USA	Secondary trauma in asylum lawyers.	Examination of asylum lawyers and the impact of their work with trauma survivors on their emotional wellbeing.	Quantitative, Cross-sectional. Explorative.	Convenience sampling. 57 asylum lawyers. Gender: 60% male. Ethnicity: 93% born in the USA	Demographics. Job satisfaction and job stress. LEC-5 STSS Perceived stress scale	Method of analysis not reported.	<i>Prevalence:</i> 87% of the participants had two or more symptoms of STS present. 9% of participants scored higher than 30 on the STSS scale.  <i>Associated factors:</i> Work hours per week was associated with higher levels of STS ( $p < .007$ ). No reporting on effect sizes. Percentages, means and normative comparison.
Schreiver et al. (2019) Australia	The psychological impact of judicial	work: Australia's first empirical research measuring	To explore the nature, prevalence, severity and	Mixed-methods study. Explorative.	Convenience sampling. 125 judges (Parts 1 and 2)	<i>Part 1.</i> Perceived stress and satisfaction. BPNSW scale	

(Continued)

Table 2. (Continued).

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
		judicial stress and wellbeing.	sources of judicial stress in Australia.		Age (years): <50 (12%) 50–59 (38.4%) 60–69 (47.2%) >70 (2.4%). Gender: 47.2% female 52.8% male.	K–10 DASS-21. <i>Part 2</i> . IDLS MBI–GS STSS AUDIT	
<i>Prevalence:</i> The majority (83.6%) of judicial officers endorsed at least one STS symptom, with	approximately a third scoring in 'moderate' to 'severe' ranges. Almost one in three judicial officers reported 'problematic' alcohol use. Interpretation of STSS scores indicated that 30.4% of the judicial officers met DSM-5 criteria for PTSD. Judicial officers'						
		rates of psychological distress were markedly higher than those of the general population and barristers, but lower than					

(Continued)

Table 2. (Continued).

Author (year) country	Title	Aims	Design	Sample	Measures	Analysis	Summary of findings
	those of law students and solicitors (no statistical significance reported). No reporting of effect sizes.						
Vrklevski & Franklin (2008) Australia	Vicarious trauma: the impact on solicitors of exposure to traumatic material.	To investigate the impact of working with traumatised clients and their traumatic material on members of the legal profession.	Quantitative, Cross-sectional. Between-groups design. Explorative.	Convenience sampling. 50 criminal lawyers; 50 non-criminal lawyers. Age (years): $M = 39.7$ ( $SD = 11.08$ ). Gender: 64% female 36% male. Ethnicity: 73% Anglo-Saxon, 8% European, 4% Middle Eastern, 3% Asian (14% not reporting)	Demographics. VTS DASS IES-r TABS.	<i>t</i> tests. Mann-Whitney test. Authors decided to use a significance level of .025.	<i>Prevalence:</i> Criminal solicitors reported higher scores on VTS ( $M = 41.50$ , $SD = 6.36$ ) than non-criminal solicitors ( $M = 26.32$ , $SD = 11.18$ ), $p < .001$ . No significant difference between groups on IES-r scores. Criminal solicitors reported higher scores on VTS ( $M = 41.50$ , $SD = 6.36$ ) than non-criminal solicitors ( $M = 26.32$ , $SD = 11.18$ ), $p < .001$ . Criminal solicitors reported higher scores on elements of the TABS – self-safety ( $p < .014$ ), other safety ( $p < .021$ ) and intimacy ( $p < .022$ ) – than non-criminal solicitors. <i>Associated factors:</i> Direct trauma affected VTS scores irrespective of the level of trauma exposure at work. No reporting of effect sizes.

Note: VT = vicarious trauma; PTSD = post-traumatic stress disorder; STS = secondary traumatic stress; MHP = mental health professional; VTS = Vicarious Trauma Scale; DASS-21 = Depression, Anxiety and Stress Scale; IES-r = Impact of Events Scale-Revised; TABS = Trauma and Attachment Belief Scale; BPNSW = Basic Psychological Needs Satisfaction at Work; K-10 = Kessler Psychological Distress Scale; IDLS = International Depression Literacy Survey; MBI-GS = Maslach's Burnout Inventory-General Survey; STSS = Secondary Traumatic Stress Scale; AUDIT = World Health Organisation's Alcohol Use Disorders Identification Test; LEC-5 = Life Events Checklist for DSM-5; DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; TIPI = Ten Item Personality Measure; CBI = Copenhagen Burnout Inventory; PTSD Checklist for DSM-5; HSCL-25 = Hopkins Symptoms Checklist-25; WHOQOL-BREF = World Health Organisation's Quality Of Life –Brief Version; CES-D = Center for Epidemiologic Studies Depression Scale; SDS = Sheehan Disability Scale; ProQOL = Professional Quality of Life Scale; PCL-5 = Posttraumatic Stress Disorder Checklist-5; ANOVA = analysis of variance; ANCOVA = analysis of covariance; SEM = structural equation modelling; CI = confidence interval.

methodological quality according to specific AXIS items is provided in [Table 3](#)

The 'quality of reporting' category (seven items) had the highest criteria met ( $M = 5.6$ ; range = 1–7). Aims, target population and methodology were described across most of the studies, as were basic data and limitations. However, four studies failed to report statistical significance or precision estimates appropriately.

The 'study design' category (seven items) revealed fewer scores in criteria met ( $M = 4$ ; range = 2–5). Most studies showed appropriate design relevant to the proposed aims, measured relevant outcome variables and linked their results to the discussion. However, none of the studies presented power calculations to justify their sample size, and only three studies reported on conflicts of interest. Three studies failed to report on ethical approval or consent procedures.

The 'risk of bias' category (six items) showed fewest criteria met ( $M = 2.9$ ; range = 0–5). Most studies used previously published measures. Sampling methodology was primarily informed by convenience sampling, which has inherent limitations and difficulties in addressing non-response bias.

### ***Prevalence of secondary trauma***

All but one reviewed study (Miller et al., 2018), which reported perceived general stress, reported the prevalence of secondary trauma. Prevalence was reported in percentages and through statistical comparison between occupations. Two studies examining judges revealed that the majority were experiencing one or more symptoms of secondary trauma (63%, Jaffe et al., 2003; 83.6%, Schrever et al., 2019). When using PTSD screening tools, 9% (Leclerc et al., 2020) and 11% (Levin et al., 2011) of lawyers met the criteria for PTSD. By interpreting STSS scores, Schrever et al. (2019) reported that 30.4% of the judicial officers qualified for a PTSD diagnosis. Piwowarczyk et al. (2009) found that 9% of their participants scored higher than

30 on the STSS scale, but without stating a cut-off score or providing inferences based on this score.

In studies comparing legal professionals' secondary trauma to other occupations, PTSD symptoms and psychological distress were consistently reported as higher for legal professions: for attorneys than for social workers and psychologists (Levin & Greisberg, 2003); for lawyers than for MHPs (Maguire & Byrne, 2017); for lawyers than for administrative support staff (Levin et al., 2011); and for immigration judges than for hospital or prison staff (Lustig et al., 2008). Additionally, criminal lawyers reported significantly higher secondary trauma scores than non-criminal lawyers (Vrklevski & Franklin, 2008), and judges reported significantly higher secondary trauma scores than barristers (Schrever et al., 2019). Most studies did not report on effect sizes ([Table 2](#)). However, Maguire and Byrne (2017) reported a large effect size ( $d = 0.90$ ) for vicarious trauma on the VTS and a medium effect size ( $r = .40$ ) for impact of trauma on IES-r when comparing lawyers and MHPs. Levin et al. (2011) also found large effect sizes from the PROQOL on burnout ( $d = 0.98$ ) and STS ( $d = 0.78$ ) when comparing lawyers and administrator staff.

Consequently, nine of the 10 papers report elevated levels of secondary trauma in the legal profession. Furthermore, all comparative studies reported significantly higher scores in the legal profession than in other professions, though not all studies reported on effect sizes. Prevalence of secondary trauma was primarily reported as the presence of secondary trauma symptoms or as meeting criteria for a PTSD diagnosis.

### ***Predictive factors***

As demonstrated in [Table 2](#), all 10 studies collected information regarding diverse predictors. The author aims to present examined risk factors and highlight similarities or differences in key findings. The review considered both associated factors emergent from the studies

Table 3. Quality appraisal scores using AXIS.

Author and year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Total
	RQ	SD	SD	RQ	SD	RB	RB	SD	RB	RQ	RQ	RQ	RB	RB	RB	RQ	SD	RQ	SD	SD	(≤20)
Jaffe et al. (2003)	✓	–	✗	✓	✓	✗	✗	✓	✗	✓	✓	✓	–	✗	–	✓	✓	✓	✗	–	10
Leclerc et al. (2020)	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	17
Levin & Greisberg (2003)	✓	✓	✗	✗	–	–	✗	✓	✓	✗	✗	✗	✓	✗	–	✗	✗	✗	–	–	5
Levin et al. (2011)	✓	✓	✗	✓	–	✗	–	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	15
Lustig et al. (2008)	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✓	–	✓	✗	✓	–	✓	13
Maguire & Byrne (2017)	✓	✓	✗	✓	–	–	✗	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	14
Miller et al. (2018)	✓	✓	✗	✓	–	✗	✓	–	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	14
Piwoarczyk et al. (2009)	–	–	✗	✓	–	✓	✓	✓	✓	✗	✗	✗	✗	✗	–	✓	✓	✓	–	–	8
Schreier et al. (2019)	✓	✓	✗	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	15
Vrklevski & Franklin (2008)	✓	✓	✗	✓	–	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	–	✓	14

Note: AXIS = Appraisal Tool for Cross-Sectional Studies (Downes et al., 2016). Appraisal category: RQ = reporting quality; SD = study design; RB = risk of bias (Kiss et al., 2018). Ratings: ✓ = criteria met; ✗ = criteria not met; – = do not know/partially met.

and results from predictive regression analyses. Factors elicited were: gender; age; work experience; personal trauma; trauma exposure; and personality traits. In total, only three studies made use of linear regression analysis examining different variables (Levin et al., 2011; Maguire & Byrne, 2017; Miller et al., 2018), which limits extensive examination of the level of variance explained by the predictors.

### *Gender*

Six included articles reported on comparative gender data as an influencing factor of secondary trauma in the legal profession, revealing equivocal results and no reported effect sizes. Some reported that females were more likely than males to report STS symptoms (Jaffe et al., 2003), meet a probable PTSD diagnosis (Leclerc et al., 2020) or experience higher levels of burnout and stress (Lustig et al., 2008). Two studies reported no effect of gender on STS (Levin et al., 2011; Maguire & Byrne, 2017). Miller et al. (2018) found that gender was a mediator between social support and outcome variables (burnout, perceived stress and job performance), such that high levels of social support related to lower levels of burnout, but only for males. Furthermore, reduced social support in females showed adverse effects on job performance.

### *Age*

Three studies examining age as a predictor of secondary trauma reported no significant effect on reported secondary trauma (Levin et al., 2011; Lustig et al., 2008; Maguire & Byrne, 2017).

### *Personality traits*

In the sole paper examining personality, Maguire & Byrne (2017) examined personality factors in secondary trauma between professions (lawyers and MHPs). Through hierarchical multiple regression analysis of secondary trauma, profession accounted for

15% of the variance. Next, the personality trait emotional stability (neuroticism) increased explained variance by 20%. Four further personality traits (extroversion, openness, agreeableness and conscientiousness) explained variance by a further 18%, and personal trauma history added 6% to the explained variance. The authors framed their findings where neuroticism/agreeableness were described as potential risk factors and conscientiousness/openness potential resilience factors for secondary trauma.

### *Direct personal trauma*

Three of the studies suggested a personal history of trauma correlated with secondary trauma symptoms. Maguire & Byrne (2017) found that although direct trauma did not correlate significantly with secondary trauma, it contributed to 6% of the variance. Vrklevski and Franklin (2008) found that direct trauma impacted on secondary trauma, irrespective of the level of trauma exposure at work. Leclerc et al. (2020) also reported that prior trauma was a significant distal factor of distress; women who were reporting prior trauma and elevated weekly hours at work had an increased risk of developing depression and anxiety symptoms.

### *Work experience/work hours*

Contribution of work experience showed mixed results, showing either no effect of years of experience on psychological distress (Leclerc et al., 2020; Levin et al., 2011) or conversely that longer work experience predicted higher levels of STS (Jaffe et al., 2003) and burnout (Miller et al., 2018). Leclerc et al. (2020), whose study suggested a cumulative effect of trauma exposure, noted that increased weekly hours of work heightened the risk of developing PTSD symptoms by 1.89 times. Levin et al. (2011) also reported that weekly work hours acted as a significant mediator in developing STS symptoms, when comparing attorneys and administrative support staff.



Levin et al. (2011) examined the explained variance of work hours and trauma exposure with secondary trauma between professions (attorneys and administrative staff). A direct association model showed that attorneys were associated with high levels of PTSD symptoms, which explained 7% of the variance. When work-related exposure was added, the model explained 14% of the variance. Next, they found that attorneys were significantly associated with high levels of STS and burnout, which explained 20% of the variance. When including work hours and trauma exposure as mediators, the model explained 32% of the variance.

#### *Level of indirect trauma exposure*

Two studies reported within-profession comparisons to control for level of trauma exposure. Leclerc et al. (2020) collected information on the percentage of respondents' caseload containing clients experiencing trauma in the past year, finding that the level of trauma exposure increased the risk of developing PTSD and resulted in higher levels of psychological distress and lower quality of life. Effect sizes between levels of trauma exposure were: no exposure and moderate exposure (medium;  $d = 0.40$ ); no exposure and high exposure (large;  $d = 0.70$ ); and moderate exposure and high exposure (small to medium). Vrkleviski and Franklin's (2008) comparison of criminal and non-criminal lawyers reported that criminal lawyers (arguably exposed to more traumatogenic material) were more likely to develop secondary trauma symptoms and psychological distress than non-criminal peers; they also disclosed more difficulties relating to self-safety, other-safety and other-intimacy attachment beliefs.

#### **Discussion**

The current study is the first systematic review to examine the prevalence and measurements of secondary trauma in legal professionals and associative and predictive factors of secondary

trauma. The review aimed to understand the extent of any difficulties and what factors might be amenable for mitigation or intervention. After a systematic process of identifying, interrogating and appraising available research findings, 10 articles examining legal professionals were chosen for review.

#### ***Prevalence and measurement***

Appraisal and synthesis of the 10 elicited studies all revealed elevated reported levels of secondary trauma. The prevalence rate of one or more symptoms of secondary trauma ranged from 63% to 83.6%. A higher percentage of the studies' populations met the DSM criteria for a PTSD diagnosis, ranging from 9% to 30.4%. The prevalence was significantly higher than reported numbers from The World Health Organisation world mental health survey (Koenen et al., 2017) reporting cross-national lifetime prevalence of PTSD at 3.9%. As some studies did not indicate whether they instructed participants to only consider secondary trauma when completing questionnaires, it is unclear whether reported secondary trauma scores were a result of direct or indirect exposure, or a combination of the two.

Comparative studies also revealed that legal professionals reported significantly higher levels of secondary trauma than MHPs, social workers, psychologists, and administrative, hospital and prison staff. Comparisons were also made within the legal professions, where criminal lawyers had higher levels of secondary trauma than non-criminal lawyers, and judges were found to have higher levels than barristers. Despite these findings, the results should be interpreted with caution due to the poor scientific methodology in most of the chosen studies.

The disparate studies reflected the conceptual confusion in the area of secondary trauma, which inhibited the direct comparison of effect sizes and prevalence rates across key findings. As such, prevalence was more distinctly reported in this review as meeting a diagnosis of PTSD, rather than other typical secondary

trauma terms. Moreover, the studies used a mixture of non-validated explorative questions and validated instruments on trauma (IES-r, PCL-5, LEC), burnout (MBI, CBI), secondary trauma (VTS, STSS, ProQOL) and general psychological distress.

### ***Predictors and associated factors***

Across the 10 studies, only two consistent findings were found; age was unrelated to secondary trauma, and levels of trauma exposure consistently correlated with secondary trauma levels. The results from the remaining proposed variables were inconsistently found across studies, notably gender, work experience, history of personal trauma and personality traits. These findings were inconsistent with results from a review on secondary trauma in first responders (Greinacher et al., 2019), which found effects of age, gender and previous trauma. Mediators reported in the current studies, which contributed to the variance of secondary trauma, included work hours, trauma exposure, personality traits and personal trauma history. Again, these findings should be interpreted with caution.

The current review only reported on factors presented in the 10 articles. This does not exclude the possibility of several other potential factors, which were not presented in the current review. Interestingly, organisational information was not collected in any of the 10 articles. The lack of consideration around organisational contexts could promote blame on individuals rather than acknowledging how the organisation could play a part in occupational distress. One could speculate that an individualistic culture could limit resilience-building schemes, which are protective of secondary trauma – such as peer support or supervision (James, 2020).

### ***Methodological limitations***

Analysis of the chosen articles for review revealed multiple methodological flaws and considerable variation in quality and scientific

rigour. All studies made use of self-report measures and convenience sampling, which elicits several limitations such as social-desirability bias, confirmation bias and selection bias. Moreover, as several studies were exploratory, they made use of questionnaire items that had not been validated. It is hard to assume that the studies were measuring what they intended, especially considering the current conceptual difficulties.

In the studies that made use of control groups, the substantial differences in occupation could have contributed to numerous confounding variables. Furthermore, when comparing the effects of reported trauma exposure with secondary trauma measures, one could argue that they measure very similar constructs on which the measures were based. In that regard, it is unclear whether the results in those cases depict significant effects or whether they are merely confirming construct validity in the secondary trauma measures. Most of the studies did not adequately control for trauma exposure to indicate a valid effect of secondary trauma.

Consistent results relating to the high prevalence of secondary trauma could indicate a presence of publication bias, specifically as all presented articles were published in peer-reviewed journal articles. Among the risk factors, the only observed consistent results were age and trauma exposure. There seems to be a high need for further examination of the inconsistent factors: gender; work experience; and personal trauma history.

Given the numerous methodological limitations and variability in quality appraisal scores, the results should be interpreted with caution. Overall, interpretations of the findings were challenging due to the methodological and conceptual limitations inherent in the literature. Nevertheless, the current review of the chosen articles contributed to some noteworthy findings that might prove useful in informing future research.

### ***Implications***

Despite the relatively few studies, the disparate measurement and some equivocal findings, the results from this review signify the importance of understanding secondary trauma in occupations other than health and social work. Whilst the findings from this review should be interpreted with caution, they could have implications for diagnostic manuals that currently focus on first responders and health professions. Interestingly, by opening the diagnostic criteria to other professions, their occupational distress could be taken seriously in academia and medical environments. However, implementing professions within the PTSD-diagnosis might also contribute to a risk of pathologising normal responses to adverse traumatogenic exposure.

Though the legal profession might not be traditionally viewed as high risk of trauma exposure, the results suggest that is not the case. Addressing elevated secondary trauma levels is essential not only to promote professional wellbeing and sustainability of their careers, but also given their need to argue for delivery of best evidence, judicial reviews and enacting the law. As health professionals receive supervision and trauma training, they might be better equipped in dealing with indirect trauma exposure. Findings from the current review could emphasise the need for training and support available for legal professionals with high trauma exposure through their work. However, the distinct individualistic focus within the studies prohibits any examination of the development of resilience, or perceived organisational support. Perhaps the recognised absence of organisational data could have implications for reviewing legal professionals' individualistic culture.

### ***Strengths and limitations***

The current study is the first systematic review to examine secondary trauma prevalence, predictors and associated factors in the legal profession. The inclusion criteria allowed for a range of legal professions to be included. However, despite this breadth, the search only

elicited a small number of articles fitting the full inclusion criteria. This indicates that this area of research is still in its infancy. The current review emphasises a great need to improve research quality and quantity within this area of study. Additionally, this review usefully highlights that professions other than health and social work might be affected by indirect trauma exposure.

However, the present review is also subject to several limitations. Given the considerable variability in conceptual understanding and methodology, this inhibited the opportunity for adequate comparison of effect sizes. Although the review has contributed to an understanding of the research aims, they may not have been addressed in a way that provided a definite answer. Moreover, this study solely focused on quantitative research, where qualitative sources could have provided a richer comprehension of the experience and meaning-making with the presented concept and population.

This review focused solely on the psychological construct of secondary trauma. It is important to note that the legal profession might experience other elements of occupational and psychological distress. Secondary trauma is merely one possible difficulty within a greater context.

### ***Future research***

As this is a relatively understudied area, the possibilities for future research are enormous. Future research would benefit from greater consensus on what constitutes professional distress, where conceptual clarification would have an impact beyond exploration of legal professions. As it follows, psychometric instruments would also benefit from comparative analyses as well as conceptual clarification and target groups.

Clear articles with conventional research structures could contribute to academic professionals giving greater attention to this vital subject. Research would also benefit from the development of more scientifically robust

methods, especially in consideration of vocational control groups. Addressing the aforementioned methodological weaknesses could contribute to more scientifically precise findings. Partly, this would include diversifying sampling methodology and addressing non-responders. Moreover, the sources of participants are only recruited in Australia and Northern America, in countries subject to an adversarial jurisdictional system. Potentially examining European inquisitorial systems would elucidate the topic further.

The 10 selected articles comprised several professions with differences that could benefit from further consideration of the topic of secondary trauma. Lawyers and judges in criminal, asylum and immigration law might be more exposed to traumatised individuals than those in other areas of the law. Also, it would be useful to examine how judges' responsibilities of making rulings and decisions, seemingly without the influence of emotions, relationships or other factors, are potentially influenced by moral distress and secondary trauma.

Given an over-emphasis on potential predictive and associated factors located in individual vulnerability, future developments could focus on factors underpinning resilience as well as deficits, organisational and training contexts, which feature in understanding professional distress in other professions (Greinacher et al., 2019; MacEachern et al., 2011). Within this, there are several possibilities of experimental designs examining the implementation of organisational changes, peer support or coping strategies.

## Conclusions

This review is the first to provide collated information from a systematic literature search regarding secondary trauma prevalence, predictors and associated factors within the legal profession. The results indicated a high prevalence of secondary trauma within this population. It also emphasised the importance of

further exploration regarding predictors of secondary trauma and suggested improvements for future research. As such, this article highlights the risk of indirect exposure to trauma in legal professions. However, considering the small number of articles and poor quality of research the findings are subject to great scrutiny. Therefore, this review emphasises the need for more scientifically robust research on this topic.

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## Ethical standards

### *Declaration of conflicts of interest*

Stine Iversen has declared no conflicts of interest

Noelle Robertson has declared no conflicts of interest

### *Ethical approval*

This article does not contain any studies with human participants or animals performed by any of the authors.

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